

ABSTRACT OF THE DISCLOSURE

A switch apparatus and method according to the invention provides a carrier-class switching platform with a highly optimized data path and distributed signaling stacks to achieve high-density differential voice services.

- 5 Incoming voice calls of any media type (TDM voice/fax, VoIP, VoATM, VoFR) are packetized and adapted for egress transmission of the same or another media type according to the service plan profile of the parties, and/or the instantaneous availability or cost of bandwidth resources. All calls are switched in an ATM switching core with QoS characteristics that can also be
- 10 determined based on service plan profile. A call server handles call setup and management functions, as well as call signaling. Advantageously, the call server provides signaling relay functions to further support and enable the media conversion of voice calls. In an exemplary implementation of the invention, up to about 6720 concurrent VoIP calls can be supported in a single
- 15 platform, with a latency of only about 17 msec ingress and 25 msec egress.